

## EAST Search History

| Ref # | Hits   | Search Query                                                                                                                            | DBs                                       | Default Operator | Plurals | Time Stamp       |
|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------|---------|------------------|
| L5    | 614794 | (position align\$4 pre\$1position pre\$1align\$4) and (substrate wafer)                                                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR               | ON      | 2006/03/27 07:25 |
| L6    | 15967  | L5 and (determine measure) and (chuck fasten secure) and @pd<"20030131"                                                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR               | ON      | 2006/03/27 08:13 |
| L7    | 1846   | L6 and ((error problem remove misalign\$4) adj3 (substrate wafer chip))                                                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR               | ON      | 2006/03/27 08:14 |
| L8    | 271    | L7 and ((correct\$3 reposition recalibrat\$3) adj3 (chip substrate wafer))                                                              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR               | ON      | 2006/03/27 08:14 |
| L9    | 662    | L6 and ((error problem "can not" fail\$3) adj3 (align\$4 position))                                                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR               | ON      | 2006/03/27 07:29 |
| L10   | 213    | L9 and ((abort stop end) adj3 (process align\$4 position\$3 calibrat\$3))                                                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR               | ON      | 2006/03/27 08:14 |
| L14   | 16     | L10 and ((damage\$1 unuseable scratch\$2 defect\$3) near3 (chip substrate wafer))                                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR               | ON      | 2006/03/27 07:38 |
| L15   | 2      | ("4557599" "6237393").pn.                                                                                                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR               | ON      | 2006/03/27 07:43 |
| L16   | 24     | L9 and ((abort stop end) adj3 (process align\$4 position\$3 calibrat\$3)) and ((remove "take out" replace) adj3 (chip substrate wafer)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR               | ON      | 2006/03/27 08:15 |
| S18   | 611    | (hiroshi and kusumoto).in.                                                                                                              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR               | ON      | 2006/03/22 08:12 |
| S19   | 534    | (hiroshi and kusumoto).in. and @pd<"20030131"                                                                                           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR               | ON      | 2006/03/22 08:12 |

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|     |        |                                                                                                                                                               |                                           |    |    |                  |
|-----|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----|----|------------------|
| S20 | 613937 | (position align\$4 pre\$1position pre\$1align\$4) and (substrate wafer)                                                                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 12:57 |
| S21 | 24945  | (250/548,559.29,559.3 355/53,55, 77 356/399-401,614 382/151-153 414/935-941 430/5,22,30 438/5,7, 14,16 700/56-66 702/94,95, 150-154).ccls. and @pd<"20030131" | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/22 08:12 |
| S22 | 8949   | S21 and S20                                                                                                                                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/22 08:12 |
| S23 | 8      | (hiroshi and kusumoto).in. and @pd<"20030131" and align                                                                                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/22 08:27 |
| S40 | 1      | (taniguchi and yoshihisa) and substrate and chucking and apparatus                                                                                            | US-PGPUB;<br>USPAT;<br>USOCR              | OR | ON | 2006/03/22 13:24 |
| S46 | 15967  | S20 and (determine measure) and (chuck fasten secure) and @pd<"20030131"                                                                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 07:04 |
| S47 | 1846   | S46 and ((error problem remove misalign\$4) adj3 (substrate wafer chip))                                                                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 13:55 |
| S48 | 39     | S47 and ((move position align\$4 pre\$1position pre\$1align\$4) adj2 (substrate wafer)) and ((determine measure possible) adj3 (chuck fasten secure))         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/22 13:42 |
| S49 | 3      | S47 and ((can\$not fail)adj3 chuck)                                                                                                                           | US-PGPUB;<br>USPAT;<br>USOCR              | OR | ON | 2006/03/22 13:50 |
| S50 | 6504   | S46 and (perpendicular orthogonal orthoganal orthonormal)                                                                                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/22 13:46 |
| S51 | 2077   | S46 and ((perpendicular orthogonal orthoganal orthonormal) adj3 (rotation axis chip wafer))                                                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/22 14:02 |
| S52 | 1364   | S46 and ((error problem remove misalign\$4) adj2 (substrate wafer chip))                                                                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/22 13:50 |

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|     |        |                                                                                                                                                                          |                                           |    |    |                  |
|-----|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----|----|------------------|
| S53 | 838    | S46 and ((error problem remove misalign\$4) adj (substrate wafer chip))                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/22 13:50 |
| S54 | 118    | S46 and ((can\$not fail\$3) adj3 (hold grasp chuck seal))                                                                                                                | US-PGPUB;<br>USPAT;<br>USOCR              | OR | ON | 2006/03/22 14:02 |
| S55 | 4      | S46 and ((can\$not fail\$3) adj3 (hold grasp chuck seal)) same (remove eject repeat)                                                                                     | US-PGPUB;<br>USPAT;<br>USOCR              | OR | ON | 2006/03/22 13:52 |
| S60 | 1715   | S46 and ((perpendicular orthogonal orthoganal orthonormal) adj2 (axis))                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/22 14:03 |
| S61 | 366    | S46 and ((align set place move) adj3 (wafer chip)) and ((perpendicular orthogonal orthoganal orthonormal) adj3 (rotation axis))                                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/22 14:04 |
| S62 | 46     | S20 and ((determine measure "find out") adj (chuck\$2 fasten\$2 secure\$2 hold held)) and @pd<"20030131"                                                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/22 14:06 |
| S63 | 15     | ("5103367"   "5117121"   "5221450"   "5436790"   "5444597"   "5463526"   "5507874"   "5557215"   "5671119"   "5699223"   "5712702"   "5751537").PN. OR ("5886865").URPN. | US-PGPUB;<br>USPAT;<br>USOCR              | OR | ON | 2006/03/22 14:18 |
| S64 | 10     | ("4026031"   "4457664"   "4752898"   "4765793"   "4833790"   "4846626"   "4880348"   "4887904"   "4907035"   "4938654").PN.                                              | US-PGPUB;<br>USPAT;<br>USOCR              | OR | ON | 2006/03/22 16:00 |
| S67 | 614794 | (position align\$4 pre\$1position pre\$1align\$4) and (substrate wafer)                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/23 07:36 |
| S71 | 15967  | S67 and (determine measure) and (chuck fasten secure) and @pd<"20030131"                                                                                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/23 07:23 |
| S72 | 1846   | S71 and ((error problem remove misalign\$4) adj3 (substrate wafer chip))                                                                                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/23 08:48 |
| S87 | 17994  | S67 and ((error problem cannot fail) adj3 (position\$3 align\$4 chuck fasten)) and (substrate wafer chip)                                                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/23 07:25 |

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|      |        |                                                                                                                                                                                                                  |                                           |    |    |                  |
|------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----|----|------------------|
| S88  | 506    | S67 and ((error problem cannot fail) adj3 (position\$3 align\$4 chuck fasten)) and ((remove eject "take out") adj3 (substrate wafer chip))                                                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/23 07:27 |
| S92  | 67     | S67 and ((error problem cannot fail) adj3 (position\$3 align\$4 chuck fasten seal grasp) adj4 (chip substrate wafer)) and ((eject remove "take out" "taken out") adj3 (chip substrate wafer)) and @pd<"20030131" | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/23 07:41 |
| S95  | 493243 | (position align\$4 pre\$1position pre\$1align\$4) and (chip substrate wafer) and @pd<"20030131"                                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/23 07:40 |
| S96  | 1635   | S95 and ((test check insure determine) adj3 (chuck fasten seal grip vacuum))                                                                                                                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/23 09:12 |
| S97  | 12     | S96 and (((error cannot "can not" problem fail) adj3 (fasten secure chuck hold)) same ((remove eject eliminate ) adj "3" (chip substrate wafer)))                                                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 08:08 |
| S98  | 941    | S95 and ((test check insure determine) adj3 (chuck fasten seal grip))                                                                                                                                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/23 09:13 |
| S100 | 115    | S96 and ((error cannot "can not" problem fail) adj3 (fasten secure chuck hold vacuum))                                                                                                                           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/23 09:20 |
| S101 | 1      | "5715064".pn.                                                                                                                                                                                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/27 07:43 |
| S102 | 6      | ("4112736"   "4458519"   "4901431"   "5381962"   "5522267"   "5553376").PN. OR ("5925835").URPN.                                                                                                                 | US-PGPUB;<br>USPAT;<br>USOCR              | OR | ON | 2006/03/23 09:36 |
| S103 | 17     | ("3800264"   "4276533"   "4322980"   "4399707"   "4691575"   "4763098").PN. OR ("5522267").URPN.                                                                                                                 | US-PGPUB;<br>USPAT;<br>USOCR              | OR | ON | 2006/03/23 09:37 |
| S104 | 1      | "4648708".pn.                                                                                                                                                                                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 08:46 |

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|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----|----|------------------|
| S10<br>5 | 614794 | (position align\$4 pre\$1position<br>pre\$1align\$4) and (substrate wafer)                                                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 07:04 |
| S10<br>6 | 15967  | S105 and (determine measure) and<br>(chuck fasten secure) and<br>@pd<"20030131"                                                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 07:05 |
| S10<br>7 | 0      | S106 and ((mark point) adj "on the"<br>adj (substrate wafer chip))                                                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 07:07 |
| S10<br>8 | 1415   | S106 and ((mark point) adj2<br>(substrate wafer chip))                                                                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 07:07 |
| S10<br>9 | 142    | S106 and (((mark point) adj3<br>(substrate wafer chip)) same ((mark<br>point) adj3 (pad stage holder<br>plate)))                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 07:12 |
| S11<br>0 | 493243 | (position align\$4 pre\$1position<br>pre\$1align\$4) and (chip substrate<br>wafer) and @pd<"20030131"                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 07:09 |
| S11<br>1 | 1635   | S110 and ((test check insure<br>determine) adj3 (chuck fasten seal<br>grip vacuum))                                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 08:12 |
| S11<br>2 | 115    | S111 and ((error cannot "can not"<br>problem fail) adj3 (fasten secure<br>chuck hold vacuum))                                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 07:09 |
| S11<br>3 | 142    | S109 not S112                                                                                                                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 07:09 |
| S11<br>4 | 83     | S106 and (((mark point) adj3<br>(substrate wafer chip)) same (align<br>position) same ((mark point) adj3<br>(pad stage holder plate))) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 07:13 |
| S11<br>5 | 6      | S111 and (((error cannot "can not"<br>problem fail) adj3 (fasten secure<br>chuck hold grip)) adj3 (chip<br>substrate wafer))           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 08:12 |
| S11<br>9 | 131    | (chuck\$3 same (substrate wafer))<br>same (correct\$3 near (position\$3<br>align\$4)) and @pd<"20030131"                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 12:58 |

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|----------|--------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----|----|------------------|
| S12<br>0 | 493243 | (position align\$4 pre\$1position pre\$1align\$4) and (chip substrate wafer) and @pd<"20030131"                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 12:57 |
| S12<br>1 | 151    | S120 and (chuck\$3 same (chip substrate wafer)) same (correct\$3 near (position\$3 align\$4))                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 12:59 |
| S12<br>2 | 17     | S120 and (chuck\$3 same (chip substrate wafer)) same (calibrat\$3 same (calibrat\$3 near (position\$3 align\$4))) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 13:02 |
| S12<br>3 | 614794 | (position align\$4 pre\$1position pre\$1align\$4) and (substrate wafer)                                           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 13:58 |
| S12<br>4 | 15967  | S123 and (determine measure) and (chuck fasten secure) and @pd<"20030131"                                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 13:59 |
| S12<br>5 | 1846   | S124 and ((error problem remove misalign\$4) adj3 (substrate wafer chip))                                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 13:59 |
| S12<br>6 | 1242   | S125 and ((move reposition position calibrat\$3) adj3 (chip substrate wafer))                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 14:00 |
| S12<br>7 | 271    | S125 and ((correct\$3 reposition recalibrat\$3) adj3 (chip substrate wafer))                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | OR | ON | 2006/03/24 14:00 |